

CLAIM AMENDMENT

Claims 1-346 (canceled).

347. (Currently Amended) A method of producing one or more collinear beams of electromagnetic energy, comprising:

[a] producing four or more separate beams of electromagnetic energy, ~~each~~ all of the separate beams of electromagnetic energy having the same selected predetermined orientation of a chosen component of electromagnetic wave field vectors substantially across each beam, a predetermined range of wavelengths and a substantially uniform flux intensity substantially across each beam of electromagnetic energy;

[b] altering the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of a plurality of portions of each of the separate beams of electromagnetic energy by passing the plurality of portions of each of the separate beams of electromagnetic energy through a respective one of a plurality of altering means whereby the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the plurality of portions of each of the separate beams of electromagnetic energy is altered in response to a stimulus means by applying a signal means to the stimulus means in a predetermined manner as ~~the plurality of portions of each of the separate beams of~~ electromagnetic energy passes through the respective one of the plurality of means for altering the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors;

[c] [i] combining at least one of the altered separate beams of electromagnetic energy with at least one of the other altered separate beams of electromagnetic energy into a first single collinear beam of electromagnetic energy without substantially changing the altered selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the plurality of portions of each of the combined separate beams of electromagnetic energy, and

[ii] combining at least one of the altered separate beams of electromagnetic energy with at least one of the other altered separate beams of electromagnetic energy into a second single collinear beam of electromagnetic energy without substantially changing the altered selected predetermined orientation of the

chosen component of the electromagnetic wave field vectors of the plurality of portions of each of the combined separate beams of electromagnetic energy;

[d] [i] resolving from the first single collinear beam of electromagnetic energy a first resolved beam of electromagnetic energy having substantially a first selected predetermined orientation of a chosen component of electromagnetic wave field vectors and a second resolved beam of electromagnetic energy having substantially a second selected predetermined orientation of a chosen component of electromagnetic wave field vectors, and

[ii] resolving from the second single collinear beam of electromagnetic energy a first resolved beam of electromagnetic energy having substantially a first selected predetermined orientation of a chosen component of electromagnetic wave field vectors and a second resolved beam of electromagnetic energy having substantially a second selected predetermined orientation of a chosen component of electromagnetic wave field vectors; and

[e] merging one of the resolved beams of electromagnetic energy from the first single collinear beam of electromagnetic energy with one of the other resolved beams of electromagnetic energy from the second single collinear beam of electromagnetic energy into a third single collinear beam of electromagnetic energy.

348. (Original) A method as described in claim 347 wherein step [a] includes producing each separate beam of electromagnetic energy further having a rectangular cross sectional area.

349. (Original) A method as described in claim 347 further comprising the step of passing the third single collinear beam of electromagnetic energy to a projection means.

350. (Original) A method as described in claim 347 further comprising the step of adjusting the electromagnetic spectrum of at least one of the separate beams of electromagnetic energy.

351. (Original) A method as described in claim 350 wherein the step of adjusting the electromagnetic spectrum of at least one of the separate beams of electromagnetic energy includes adjusting the predetermined range of wavelengths of at least one of

the separate beams of electromagnetic energy.

352. (Original) A method as described in claim 350 wherein the step of adjusting the electromagnetic spectrum of at least one of the separate beams of electromagnetic energy includes adjusting the magnitude of at least one of the separate beams of electromagnetic energy.

353. (Currently Amended) A method of producing one or more collinear beams of light, comprising:

[a] producing four or more separate beams of light, ~~each~~ all of the separate beams of light having the same selected predetermined orientation of a chosen component of electric field vectors substantially across each beam, a predetermined range of wavelengths and a substantially uniform flux intensity substantially across each beam of light;

[b] altering the selected predetermined orientation of the chosen component of the electric field vectors of a plurality of portions of each of the separate beams of light by passing the plurality of portions of each of the separate beams of light through a respective one of a plurality of altering means whereby the selected predetermined orientation of the chosen component of the electric field vectors of the plurality of portions of each of the separate beams of light is altered in response to a stimulus means by applying a signal means to the stimulus means in a predetermined manner as ~~the plurality of portions of each of~~ the separate beams of light passes through the respective one of the plurality of means for altering the selected predetermined orientation of the chosen component of the electric field vectors;

[c] [i] combining at least one of the altered separate beams of light with at least one of the other altered separate beams of light into a first single collinear beam of light without substantially changing the altered selected predetermined orientation of the chosen component of the electric field vectors of the plurality of portions of each of the combined separate beams of light, and

[ii] combining at least one of the altered separate beams of light with at least one of the other altered separate beams of light into a second single collinear beam of light without substantially changing the altered selected

predetermined orientation of the chosen component of the electric field vectors of the plurality of portions of each of the combined separate beams of light;

[d] [i] resolving from the first single collinear beam of light a first resolved beam of light having substantially a first selected predetermined orientation of a chosen component of electric field vectors and a second resolved beam of light having substantially a second selected predetermined orientation of a chosen component of electric field vectors, and

[ii] resolving from the second single collinear beam of light a first resolved beam of light having substantially a first selected predetermined orientation of a chosen component of electric field vectors and a second resolved beam of light having substantially a second selected predetermined orientation of a chosen component of electric field vectors; and

[e] merging one of the resolved beams of light from the first single collinear beam of light with one of the other resolved beams of light from the second single collinear beam of light into a third single collinear beam of light.

354. (Original) A method as described in claim 353 wherein step [a] includes producing each separate beam of light further having a rectangular cross sectional area.

355. (Original) A method as described in claim 353 further comprising the step of passing the third single collinear beam of light to a projection means.

356. (Original) A method as described in claim 353 further comprising the step of adjusting the light spectrum of at least one of the separate beams of light.

357. (Original) A method as described in claim 356 wherein the step of adjusting the light spectrum of at least one of the separate beams of light includes adjusting the predetermined range of wavelengths of at least one of the separate beams of light.

358. (Original) A method as described in claim 356 wherein the step of adjusting the light spectrum of at least one of the separate beams of light includes adjusting the magnitude of at least one of the separate beams of light.

359. (Currently Amended) A system of producing one or more collinear beams of electromagnetic energy, comprising:

[a] means for producing four or more separate beams of electromagnetic energy, ~~each~~all of the separate beams of electromagnetic energy having the same selected predetermined orientation of a chosen component of electromagnetic wave field vectors substantially across each beam, a predetermined range of wavelengths and a substantially uniform flux intensity substantially across each beam of electromagnetic energy;

[b] means for altering the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of a plurality of portions of each of the separate beams of electromagnetic energy by passing the plurality of portions of each of the separate beams of electromagnetic energy through a respective one of a plurality of altering means whereby the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the plurality of portions of each of the separate beams of electromagnetic energy is altered in response to a stimulus means by applying a signal means to the stimulus means in a predetermined manner as ~~the plurality of portions of each of the separate beams of~~ electromagnetic energy passes through the respective one of the plurality of means for altering the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors;

[c] [i] means for combining at least one of the altered separate beams of electromagnetic energy with at least one of the other altered separate beams of electromagnetic energy into a first single collinear beam of electromagnetic energy without substantially changing the altered selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the plurality of portions of each of the combined separate beams of electromagnetic energy, and

[ii] means for combining at least one of the altered separate beams of electromagnetic energy with at least one of the other altered separate beams of electromagnetic energy into a second single collinear beam of electromagnetic energy without substantially changing the altered selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the plurality of portions of each of the combined separate beams of electromagnetic energy;

[d] [i] means for resolving from the first single collinear beam of electromagnetic energy a first resolved beam of electromagnetic energy having

substantially a first selected predetermined orientation of a chosen component of electromagnetic wave field vectors and a second resolved beam of electromagnetic energy having substantially a second selected predetermined orientation of a chosen component of electromagnetic wave field vectors, and

[ii] means for resolving from the second single collinear beam of electromagnetic energy a first resolved beam of electromagnetic energy having substantially a first selected predetermined orientation of a chosen component of electromagnetic wave field vectors and a second resolved beam of electromagnetic energy having substantially a second selected predetermined orientation of a chosen component of electromagnetic wave field vectors; and

[e] means for merging one of the resolved beams of electromagnetic energy from the first single collinear beam of electromagnetic energy with one of the other resolved beams of electromagnetic energy from the second single collinear beam of electromagnetic energy into a third single collinear beam of electromagnetic energy.

360. (Original) A system as described in claim 359 in which the means for producing four or more separate beams of electromagnetic energy includes means for producing each separate beam of electromagnetic energy having a rectangular cross sectional area.

361. (Original) A system as described in claim 359 further comprising means for passing the third single collinear beam of electromagnetic energy to a projection means.

362. (Original) A system as described in claim 359 further comprising means for adjusting the electromagnetic spectrum of at least one of the separate beams of electromagnetic energy.

363. (Original) A system as described in claim 359 in which the means for adjusting the electromagnetic spectrum of at least one of the separate beams of electromagnetic energy includes means for adjusting the predetermined range of wavelengths of at least one of the separate beams of electromagnetic energy.

364. (Original) A system as described in claim 359 in which the means for adjusting the electromagnetic spectrum of at least one of the separate beams of electromagnetic energy includes means for adjusting the magnitude of at least one of the separate beams of electromagnetic energy.

365. (Currently Amended) A system of producing one or more collinear beams of light, comprising:

[a] means for producing four or more separate beams of light, ~~each~~all of the separate beams of light having the same selected predetermined orientation of a chosen component of electric field vectors substantially across each beam, a predetermined range of wavelengths and a substantially uniform flux intensity substantially across the initial beam of light;

[b] means for altering the selected predetermined orientation of the chosen component of the electric field vectors of a plurality of portions of each of the separate beams of light by passing the plurality of portions of each of the separate beams of light through a respective one of a plurality of means for altering means whereby the selected predetermined orientation of the chosen component of the electric field vectors of the plurality of portions of each of the separate beams of light is altered in response to a stimulus means by applying a signal means to the stimulus means in a predetermined manner as ~~the plurality of portions of each of the separate beams of light passes through the respective one of the plurality of means for altering~~ the selected predetermined orientation of the chosen component of the electric field vectors;

[c] [i] means for combining at least one of the altered separate beams of light with at least one of the other altered separate beams of light into a first single collinear beam of light without substantially changing the altered selected predetermined orientation of the chosen component of the electric field vectors of the plurality of portions of each of the combined separate beams of light, and

[ii] means for combining at least one of the altered separate beams of light with at least one of the other altered separate beams of light into a second single collinear beam of light without substantially changing the altered selected predetermined orientation of the chosen component of the electric field vectors of the plurality of portions of each of the combined separate beams of light;

[d] [i] means for resolving from the first single collinear beam of light a first resolved beam of light having substantially a first selected predetermined orientation of a chosen component of electric field vectors and a second resolved beam of light having substantially a second selected predetermined orientation of a chosen component of electric field vectors, and

[ii] means for resolving from the second single collinear beam of light a first resolved beam of light having substantially a first selected predetermined orientation of a chosen component of electric field vectors and a second resolved beam of light having substantially a second selected predetermined orientation of a chosen component of electric field vectors; and

[e] means for merging one of the resolved beams of light from the first single collinear beam of light with one of the other resolved beams of light from the second single collinear beam of light into a third single collinear beam of light.

366. (Original) A system as described in claim 365 in which the means for producing four or more separate beams of light includes means for producing each separate beam of light having a rectangular cross sectional area.

367. (Original) A system as described in claim 365 further comprising means for passing the third single collinear beam of light to a projection means.

368. (Original) A system as described in claim 365 further comprising means for adjusting the light spectrum of at least one of the separate beams of light.

369. (Original) A system as described in claim 368 in which the means for adjusting the light spectrum of at least one of the separate beams of light includes means for adjusting the predetermined range of wavelengths of at least one of the separate beams of light.

370. (Original) A system as described in claim 368 in which the means for adjusting the light spectrum of at least one of the separate beams of light includes means for adjusting a magnitude of at least one of the separate beams of light.

Claims 371-438 (canceled).